Federation of Earth Science Information Partners
Partnership Application

Please complete all sections to the fullest extent possible and forward completed application to: Carol Meyer, carol.meyer@earthsciencefoundation.org. If you have any questions, please contact her at 877.870.3747.

I. CONTACT INFORMATION

A. Primary Contact/Principal Investigator

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B. Designated Assembly Representative (could be same as above)

Name: Same as above

Address:
Phone:
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C. Other Contacts

Name: Douglas Fils

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Name:

Address:
Phone:
Fax:
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Name:

Address:
Phone:
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II. ABOUT YOUR ORGANIZATION

A. ORGANIZATION/DIVISION/PROJECT NAME:

CHRONOS

B. OVERVIEW OF YOUR PRIMARY ACTIVITIES (250 words or less)

Geologic time is the intellectual theme that connects a wide variety of research endeavors in geoscience - missing is the corresponding cyberinfrastructure that allows the resources of all these endeavors to be pooled. CHRONOS's purpose is to transform Earth history research by seamlessly integrating geoscience databases and tools. CHRONOS is a team of geoscientists and information technology specialists creating a cyberinfrastructure that will deliver open access to a global federation of Earth history databases, tools, and services. CHRONOS's activities are grouped into three main initiatives: building cyberinfrastructure, community involvement, and education & outreach.

C. Please list and briefly describe the primary product(s) or service(s) that your organization provides (will provide) to the community.

Portal (ref: http://portal.chronos.org/)

Databases: CHRONOS gives access to paleobiological and stratigraphic data from over 2.5 million mainly marine samples. Data are stored in six federated and two hosted databases accessible through common interfaces (ref: http://portal.chronos.org/gridsphere/gridsphere?cid=searches and http://portal.chronos.org/gridsphere/gridsphere?cid=resources)

Tools – Age Depth Plotting, PSICAT (core logging), Age Range Chart, CONOP9 Web Service (ref: http://portal.chronos.org/gridsphere/gridsphere?cid=tools_services)

Web services (RPC SOAP and REST interfaces)
A list of services can be found at
http://portal.chronos.org/gridsphere/gridsphere?cid=res_dev

CHRONOS is working on the implementation of GeoSciML (http://www.opengis.net/GeoSciML/) as well as helping with the **Geological Time Systems aspect of GeoSciML** (https://www.seegrid.csiro.au/twiki/bin/view/CGIModel/GeologicTime).

Future efforts will focus on the incorporation of **semantics into services and data resources** to aid in 3rd party data integration. Additionally, CHRONOS works with a large number of data providers as a gateway for their resources (http://portal.chronos.org/gridsphere/gridsphere?cid=resources and http://portal.chronos.org/gridsphere/gridsphere?cid=Help)

D. Please give a main website address for the proposed Partnership:

Web Address:http://www.chronos.org

III. HOW YOUR ORGANIZATION WILL BENEFIT FROM/CONTRIBUTE TO THE EARTH SCIENCE INFORMATION PARTNERS (ESIP) FEDERATION

A. Describe current or anticipated users of your products and services and how you think the Federation can help you better serve this population. (200 words or less)

CHRONOS's users are mainly paleobiologists and stratigraphers. We provide data management for ANDRILL (Antarctic Drilling) and other groups providing taxonomic information for marine plankton groups. Among our main goals is the facilitation of the use and discovery of these data and tools, including use of these data for education and outreach, specifically to improve the calibration of the geological time scale (International Commission on Stratigraphy, EARTHTIME).
We are looking at the Federation as a new avenue to increase our user base, build new partnerships, discovering new opportunities to implement our technology, and as a platform where to learn about community best-practices and with which to share technological approaches.

B. Describe any Earth science technologies that you have developed and are willing to bring to the Federation's efforts to provide best-practices. (200 words or less)

CHRONOS continues to evolve its services-oriented architecture and expand the use of community XML schema to facilitate data exchange and integration across institutions. We have extensive experience in the development of relational data models for complex stratigraphic data and taxonomic atlases as close collaboration between developers and domain scientists.

C. Describe how your proposed membership would contribute to the efforts and the mission of one or more standing committees, working groups and/or clusters. See Page 3 for descriptions of the different activities of the various standing committees, working groups, and clusters. (200 words or less)

For the last 4 years, CHRONOS has been working directly with many science groups that generate data to facilitate the exposure of their data on the Web through community best practices. One of our key goals has been interoperability and standard development. We would like to make CHRONOS available as testing ground for the Information Technology and Interoperability group as well as contributing to the development of standards and giving feedback on our experience with interoperability, services-oriented architecture, and tool development. We also think that we could contribute to the Education group through our experience with the utilization of Web-based technology for undergraduate education.

D. Describe your own use of Earth science information and data and how you would see this use enhanced by your partnership in the Federation. (200 words or less)

CHRONOS has already developed methods for the incorporation of external data sets into results returned to users (Example: http://services.chronos.org/xqe/public/chronos.portal.taxon?taxon=Globigerinoides%20mitra). This procedure pulls data via services from multiple locations to provide alternative data for users. We would like to collaborate with partners in the Federation working on interoperability to expand this ability to dynamically mash-up data from other remote Earth science data sets as part of the development of a global Earth science Informatics community.

IV. YOUR CHOICE OF MEMBERSHIP TYPE. PLEASE PICK ONE.

ESIP-I (primarily a data archive center)	
ESIP-II (primarily a research center)	X
ESIP-III (primarily applications and education)	
ESIP-IV (primarily a sponsoring member)	

V. Any other comments about your proposed membership and its relation to the Federation that you wish to provide.

Thank you for your application for partnership in the ESIP Federation.

List of Federation Committees and Clusters

Administrative Committees

Executive Committee: Comprised of all standing and administrative committee chairs, ESIP Type Representatives, the President and Vice President of the Federation. Oversight body for most day-to-day activities of the Federation, acts on behalf of the Assembly between meetings.

Constitution and Bylaws: Provides counsel on matters related to the constitution and bylaws and other related issues (e.g. amendments to government documents)

Finance and Appropriations: Oversees financial resources of the Federation, including the annual budgeting process.

Partnership: Reviews and processes all applications for membership before making applications available for review by members of the Federation. Deals with other membership-related issues.

Standing Committees:

Commercial Development: Promotes a forum wherein commercial development of Earth science information can be fostered.

Community Engagement: Provides a forum for the Federation to promote partner products and to engage new users for data products and services.

Education: Provides a forum to make accessible to educators and learners at all levels in both formal and informal educational contexts the Earth science data, information, tools, and curricula available within the ESIP Federation.

Information Technology and Interoperability: Provides a forum for discussing information technology and interoperability issues of the Earth science community and serves as a central point for activities in this realm.

*Products and Servic*es: Provides a forum for defining best practices and defining requirements for earth science products and services. Currently is involved in developing an inventory of partner products and services.

Clusters (presently active, April 2005):

GIS

Intelligent Systems

Air Quality